Does assessment of pain vary across age groups?

SCHOFIELD, Patricia <http://orcid.org/0000-0003-4242-754X>

Introduction

Pain assessment has been described as being a fundamental aspect of pain management. It is essential to the role of nursing and fits with the whole concept of advocacy. As far back as the work of Margo McCaffery (1) (1968), pain assessment was highlighted as complex, yet essential and this was reinforced by the Royal College of Surgeons, Pain after surgery report (2) which proposed that pain assessment was the 5th vital sign. So we are aware of the importance of pain assessment and we now have an understanding of the complex nature of pain along with an increased awareness of the pain tools which are available. This paper will discuss the issues which need to be taken into consideration when carrying out pain assessment across the lifespan and in different patient populations.

Acute versus chronic pain

The type of pain that we are dealing with will influence how we assess the pain. Acute pain as we know is a sign of injury or disease and will usually resolve once the disease or injury has healed (3). On the other hand, chronic pain can be ongoing for many months or years and often has no identifiable physical cause (3). We cannot have the same priorities when assessing pain in these two groups. Therefore, when dealing with acute pain, we need to adopt an approach which is fairly quick, captures the intensity of the pain and enables us to apply a management approach quickly. So, the individual who presents in accident and emergency with a fractured neck of femur will require quick and effective pain control compared to the person who attends the pain clinic with a ten- year history of low back pain.

Multidimensional nature of the pain experience.

We know that pain is a complex experience. Since Melzack & Wall first postulated their theory of pain in 1965 (4), our understanding has improved, and we are now aware how many factors influence the experience. For example; age, gender, sociocultural factors, personality, meaning of the pain, attitudes and beliefs of the individual and the staff dealing with the person. All have been well document within the literature, and all come into play to a lesser or greater degree with the physiological component. Therefore, an individual may be fearful that the pain is associated with some underlying sinister diagnosis which can make it feel worse. Similarly there are suggestions that males experience more pain than their female counterparts or that introverts feel pain sooner but complain less (5) Reflect upon the work of Beecher who demonstrated that soldiers injured in the field of battle did not complain of pain until they reached the safety of the military hospitals, suggesting the concept of self-preservation overriding the pain experience (6). Importantly, for this paper is the issue of age. Historically, people believed that babies do not feel pain and therefore analgesics were not routinely used (7). Similarly, there are many myths and misconceptions surrounding the pain experienced by older adults which has resulted in poor pain management for this population (8). It is clear however, that whichever pain assessment process is adopted, it is not a “one size fits all” approach.

Tools for intensity assessment

There has been a great deal of research exploring the validity and reliability of pain intensity measures. We are confident that the visual analogue scale remains the gold standard (9). This is a 10cm horizontal line with no pain at one end and worst pain imaginable at the other end. This has been modified for use with children and young infants into the Eland colour scale (10) or the Faces

Pain Scale (11). Whilst there are some suggestions that these modified scales could be used with the older population, they are not really appropriate. Although, a recent study with Nepalese adults found that the faces scale (revised) and the verbal rating scale were the most popular with adults, particularly older adults (12). Thus, suggesting some cross cultural differences. Most of the evidence suggests the best approach would be to use either the verbal rating scale or the numerical rating scale. Both are also, modified versions of the visual analogue scale. But they are less abstract and therefore easier for the older adult to comprehend. If the older adult has reduced cognitive ability, we need to apply a measure that captures behavioural indicators such as; facial expression, body movements or verbal sounds. The recent National guidelines on Pain Assessment for Older Adults (13) identified 12 behavioural scales which all had varying degrees of evidence underpinning their use. Examples include; Abbey Pain Scale (14), Doloplus scale (15) and PainAd (16). In clinical practice, certainly in the UK, the Abbey Pain scale has become the most widely used. Particularly because the language used in the scale is easy to understand and it is quite quick to apply. However, Doloplus is increasingly popular across European countries and PainAd is underpinned by the best evidence. The important factor is that the health professional needs to be aware of all of the available pain measures and apply them appropriately to the individual patient in their care.

Other factors to consider

As discussed earlier. Pain is a multidimensional experience and intensity remains just one aspect. We have a plethora of tools available to measure other components such as anxiety, depression, coping, self efficacy and quality of life (17). The tools add to the complexity of the pain assessment process and are therefore limited in their application and generally used within the pain clinic or chronic pain setting. In terms of age application, the scales are used within the older population, but are limited to those with no cognitive impairment as they are rather lengthy and time consuming to complete. In terms of quality measures, the most widely validated scale is the McGill Pain Questionnaire (MPQ) (18). This scale originates from the work of Melzack at the McGill University in Montreal and offers 78 descriptors to describe the pain. Choice of descriptors enables sensory, affective and evaluative components of the pain to be determined into a score. This questionnaire is often used in pain clinic settings, but is fairly time consuming to complete and tends to be used with the general adult population.

Clinical Practice

How pain assessment is conducted in the clinical practice setting may vary according to the setting and the speciality. As mentioned previously, acute pain requires a quick measure of intensity followed by quick management to get the pain under control. On the other hand, chronic pain requires a more comprehensive assessment of all of the factors which may be influencing the pain along with the pain intensity and possibly quality. In terms of age specific measures, there is no “one size fits all” and scales used for children are not appropriate for the older population (19). If cognitive impairment in the older adult is mild to moderate, simple scales may be applied. But where there is severe cognitive impairment, we need to adopt one of the behavioural scales. The important point is to act on the assessment and subsequently manage the pain more effectively.

Future Research

Assessment of pain has improved in many clinical settings. But there are still a number of areas on which improvements can be made. When a pain assessment has been carried out, it is important for the health care professional to respond to that pain score, manage the pain and subsequently

reassess the pain for the impact of the management. This will enable a better understanding of the effectiveness of interventions. Research into the various pain scales needs to be ongoing. We do not need to develop any further behavioural pain scales. But we do need to be confident which scales are the most reliable and valid across the age spectrum. An area of growing and important need in terms of research is that of the older population living in care homes. This population of the oldest, most frail and most vulnerable is cared for often by our most poorly paid and junior staff with very little support (20). There must be investment into understanding the needs of this population and subsequently understanding the training needs of the staff who provide their care.

Finally

A better understanding of the pain experience will improve pain management. All staff need to be aware of the arsenal of pain measures and how to apply them irrespective of the age of the population to which they serve. Age is just one of the many factors that make up the whole multidimensional pain experience. Nevertheless, an aspect that must be tailored appropriately.

1. McCaffery, M. (1968). *Nursing practice theories related to cognition, bodily pain, and man-environment interactions*. Los Angeles: University of California at Los Angeles Students' Store.
2. Royal College of Surgeons, College of Anaesthetists. (1990) Pain after Surgery RCOA.
3. Classification of Pain Terms: A taxonomy. Merskey. H & Bogduk. N (1994). IASP Press Seattle
4. Pain Mechanisms: A new theory. Melzack. R & Wall. P 1965;150:971–979
5. Bond. M (1984) Pain: Its nature, analysis and treatment. Churchill Livingstone.
6. Beecher, H. K.: Subjective Response and Reaction to Sensation: Reaction Phase as Effective Site for Drug Action , Am. J. Med. 20: 107-113 ((Jan.)) 1956
7. Rodkey E & Ridell R (2012) The Infancy of Infant Pain Research: The Experimental Origins of Infant Pain Denial. Pain 14(4):338-50
8. Thielke.S., Sale.J., Reid.C. (2012) Ageing: are these 4 pain myths complicating care. J Fam Pract. 2012 Nov; 61(11): 666–670
9. Scott J, Huskisson EC. Graphic representation of pain. *Pain* 1976; 2: 175–84
10. Eland JM. Minimizing pain associated with prekindergarten intramuscular injections. Issues Compr Pediatr Nurs. 1981;5:361–72
11. Hicks CL, von Baeyer CL, Spafford PA, van Korlaar I, Goodenough B. The Faces Pain Scale – Revised: Toward a common metric in pediatric pain measurement. Pain. 2001;93:173–83
12. Pathak A., Sharma S., Jenson MP (2018) The utility and validity of pain intensity rating scales for use in developing countries. Pain Rep. 2018 Sep-Oct; 3(5): e672
13. Schofield PA (2018) The Assessment of Pain in Older People: UK National Guidelines. Age Ageing. 2018 Mar; 47(Suppl 1): i1–i22.
14. Abbey J, Piller N, De Bellis A *et al*. The Abbey pain scale: a 1-minute numerical indicator for people with end-stage dementia. *Int J Palliat Nurs* 2004;10:6–13.
15. Doloplus C. The Doloplus web-site 2006. http://www.doloplus.com/versiongb/index.htm
16. Warden V, Hurley AC, Volicer L. Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) scale. J Am Med Dir Assoc. 2003;4:9–15

17. Bendinger T & PlunkettN Measurement in Pain Medicine. *BJA Education*, Volume 16, Issue 9, 1 September 2016, Pages 310–315
18. Melzack R. The McGill Pain Questionnaire: major properties and scoring methods. Pain. 1975;1:277–299
19. Ahmedzai S. Personalized Medicine—One Size Fits One: Tailoring Pain Therapy to Individuals' Needs March 2013 Journal of Pain & Palliative Care Pharmacotherapy 27(1):83-5
20. The state of Adult Social Care (https://www.skillsforcare.org.uk/NMDS-SC-intelligence/Workforce-intelligence/publications/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx accessed 5th Feb 2019).